Assignment 1

(First Order Differential Equation)

1. Solve the given differential equation by separation of variables:
   a. $\frac{dy}{dx} = sin5x$
   b. $\mathrm{dx} + \mathrm{e}^{3\mathrm{x}}\mathrm{dy} = 0$
   c. xy'=4y
2. solve the differential equation if it is exact:
   a. (2x-1)dx+(3y+7)dy=0
   b. (5x+4y)dx+(4x-8y^3)dy=0

Submission Due date: 27th Jan 2011, 06:00 PM at SOE Staff Room.